

C. APPLICANT'S COMMENTS.

The Official Action rejected as-filed Claims 1-7 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,493,871. The Applicant respectfully disagrees with this rejection particularly in view of the amendments made to the claims.

It is important to first briefly discuss 35 U.S.C. §102 and its application to the present application. Under section 102(b), anticipation requires that the prior art reference disclose, either expressly or under the principles of inherency, every limitation of the claim.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Under 35 U.S.C. §102, anticipation requires that each and every element of the claimed invention be disclosed in the prior art. In addition, the prior art reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public. *Akzo N.V. v. United States Int'l Trade Comm'n*, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987) (emphasis added). Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *W.L. Gore & Assocs. v. Garlock, Inc.*, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984).

United States Patent No. 5,493,871 (hereinafter “the ‘871 patent”) to Eiermann discloses a “METHOD AND APPARATUS FOR LATENT HEAT EXTRACTION.” The ‘871 patent teaches passing air over three coils to chill air to a desired temperature. Chilled air at the desired temperatures then expelled from the unit. Three separate coils are used in the ‘871 patent. The coils contact the air in succession to provide a heating or chilling effect on the air that passes over each coil. A primary cooling coil is used to chill air that passes across its coils. The primary cooling coil is connected to a plurality of chillers that send chilled fluid directly to the primary cooling coil. The primary cooling coil is not fluidly connected to the other two coils, which are comprised of a reheating coil fluidly connected to a precooling coil, both of which use a fluid supply, denoted in Fig. 5 of the ‘871 patent as a “hot water loop.” The precooling and reheating coils contact the air prior and subsequent to the air passing over the primary cooling coil. The “hot water loop” is an entirely separate loop from the chilled water loop associated with the primary cooling coil.

Claim 1 has the following features:

1. (Original) A fluid cooled air conditioning system, comprising:  
**a first valve** fluidly connected to a **chilled fluid supply** providing a chilled fluid;  
**a main cooling unit** fluidly connected to said first valve;  
**a precooling unit**, wherein said precooling unit is positioned to receive return air prior to said main cooling unit; and  
**a second valve** fluidly connected between said main cooling unit and a chilled fluid return and said precooling unit, wherein said second valve directs said chilled fluid to said precooling unit during periods of high cooling requirements and wherein said second valve diverts said chilled fluid to said chilled fluid return during periods of normal cooling requirements.

The present invention shows features not present in Eiermann, therefore not subject to rejection under 35 U.S.C. § 102(b). The prior art shown in the ‘871 patent has similarities to the current invention, however, the present invention and the ‘871 patent’s likenesses end there. The ‘871 patent shows two separate heating and cooling

exchange conduits. The present invention only requires one heating and cooling exchange conduit to achieve the similar result of cooling air passing over the coils.

The present invention uses chilled fluids acquired directly from a chilling source in both the precooling coils and the primary cooling coil. The '871 patent's chilling source acquires its cooling fluid from the chillers. However, the precooling coil in the present invention utilizes chilling fluid from the same source as the primary cooling coil, whereas the '871 patent requires a separate cooling source and conduit system to precool incoming air prior to contact with the primary cooling coil.

The '871 patent makes use of the precooling coil by first passing the chilling fluid across a reheating coil then on to the precooling coil. The present invention disposes of the need for the reheating coil by utilizing the primary cooling coil in place of the reheating coil. This accomplishes chilling the primary cooling coil with chilling fluids directly from the chiller(s) but does not require the reheating coils or the extra source of chilling fluid that the '871 patent requires to create an advantageous precooling coil environment.

The second valve referred to in Claim 1 of the present invention presents a more functional approach than does the second valve in the '871 patent. The second valve in the present invention is a three way valve that simply allows the chilling fluid to bypass the precooling unit and return the chilling fluid to the fluid return when precooling is unnecessary. The second valve in the '871 patent neither receives the chilling fluid from the primary cooling coil, nor delivers the cooling fluid to the fluid return when precooling is unnecessary.

Based on the foregoing arguments the '871 patent does not teach the same function or structure that the present invention. Essentially, the present invention has developed one functional cooling fluid conduit that performs the task of the two requisite cooling fluid conduits of the '871 patent.

Amended Claim 5 has the following features:

5. (Currently Amended) A method of operating a fluid cooled air conditioning system, comprising the steps of:
  - (c) **providing a chilled fluid to a main cooling unit; and**
  - (d) **directing chilled fluid from said main cooling unit to a precooling unit if a room temperature is greater than a set point, wherein said precooling unit receives a flow of return air and wherein said main cooling unit receives a flow of precooled air from said precooling unit.**

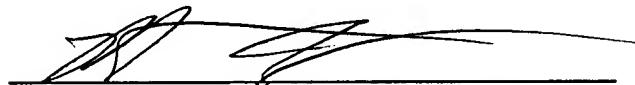
Claim 5 of the present invention consists of a main functional difference from the '871 patent in that the "chilled fluid from said main cooling unit to a precooling unit" is not present in the '871 patent. As discussed prior, the chilled fluid that crosses the main cooling unit in the '871 patent never enters the same conduit system that the precooler uses nor does the chilled fluid from the main cooling unit ever come in contact with the precooling unit's coils.

The Applicant respectfully submits that the '871 patent does not qualify as appropriate prior art under 35 U.S.C. §102(b) as the '871 patent does not disclose (expressly or inherently) all of the elements of independent Claims 1 and 5.

**D. CONCLUSION**

In light of the foregoing amendments and remarks, early reconsideration and allowance of this application are most courteously solicited. Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully asked that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. Alternatively should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, they are invited to telephone the undersigned.

Respectfully submitted,



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